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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,076	12/28/2001	Richard E. Smalley	11321-P012USD8	9985
7590 05/11/2004 Ross Spencer Garsson Suite 800 100 Congress Avenue Austin, TX 78701			EXAMINER HENDRICKSON, STUART L	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 05/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033076

Applicant(s)

Smalley

Examiner

DeFidia

Group Art Unit

1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1/13/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 91-98, 100-103, 163-182 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 91-98, 100-103, 163/82 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Claim 93 has an unmatched bracket.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 91-98, 100-103 and 163-182 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 91, 93, 94, etc. it is not clear how a fiber can be composed of other fibers, especially as to what is meant (aspect ratio, etc.) by 'macroscopic carbon fiber'. It is not clear if self-assembled nanotubes are meant, or whether the substructure of a carbon fiber is claimed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 91, 93, 94-97, 100, 163-178 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Guo et al article, alone or in view of Wang article. (Appl. Phys. Lett.)

The reference teaches single-wall nanotubes. The number is not taught, however Wang shows that nanotubes assemble in numbers 10 times those claimed. Therefore, it is expected that Guo makes the claimed number of nanotubes. While not teaching the claimed product exactly, where the examiner has found substantially the same product as claimed in the art, the burden is upon the applicant to show a difference; In re Fitzgerald et al. 205 USPQ 594.

In so far as the rejection is under '103, then it is noted that the quantity of a material does not impart patentability; In re rose 105 USPQ 137.

The further description/intended use does not limit the claimed product; if significant non-nanotube structure is claimed, then the added/amended claims are subject to restriction. The dopant of claim 167 is deemed met by catalyst particles expected to be present.

Claims 98, 101-103, 179-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guo et al., alone or in view of Wang, and taken with applicants' admissions in the specification and Fishbine.

The above does not teach the additional materials, however applicant indicates on specification pgs. 30, 27, 48, etc. that the coaxial cable, composites, etc. are old and known; applicant has a new filler. Fishbine indicates in the opening paragraphs that carbon nanotubes have particular properties and is taken to be representative of the known uses of nanotubes. The examiner takes Official Notice that the claimed structures of these dependent claims are old and known, nothing that there is nothing in the specification to indicate otherwise.

Using the nanotubes in a composite or manner claimed is an obvious expedient to exploit their emitter, conductive and other properties.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.

A handwritten signature in black ink, appearing to read "Stu Hendrickson", is positioned above the printed name.

Stuart Hendrickson
examiner Art Unit 1754